

Exhibit P-40, Budget Item Justification Sheet								Date: February 2004				
Appropriation / Budget Activity/Serial No: Procurement, Marine Corps (1109) / Communications and Electronic Equipment (4)						P-1 Item Nomenclature: RADIO SYSTEMS						
Program Elements: 0206313M Marine Corps Communication Equipment				Code: A	Other Related Program Elements:							
	Prior Years			FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty												
Gross Cost	391.8			56.2	23.7	14.5	16.4	10.7	26.8	10.3	Cont	Cont
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	391.8			56.2	23.7	14.5	16.4	10.7	26.8	10.3	Cont	Cont
Initial Spares	10.7			3.7	0.6	2.1	0.9	0.5	1.3	1.0	Cont	Cont
Total Proc Cost	402.5			59.9	24.3	16.6	17.2	11.2	28.1	11.3	Cont	Cont
Flyaway U/C												
Wpn Sys Proc U/C												

This is a roll-up line which contains the following programs:

LIGHTWEIGHT MULTIBAND STATELLITE TERMINALS (LMST) are tri-band Super High Frequency (SHF) satellite terminals mounted in transit cases and transported by HMMWVs. They will upgrade existing Ground Mobile Force (GMF) satellite terminals to extend their useful life. The AAO for the LMST was tailored to allow a procurement of 52 terminals to ensure the USMC C2 Architecture.

The Global Broadcast Service (GBS) provides a worldwide, high capacity, one-way transmission of video, imagery, and other information as required to support joint military forces in garrison, in transit, and in theater. The GBS system will broadcast via communication payloads on a constellation of DoD satellites augmented by leased commercial satellite services. Information (data and video) is collected, organized, and fed to the satellite uplink by fixed or transportable injection points. Services provided by GBS include File Transfer Protocol (FTP), NIPR/SIPRNET access, audio and video such as CNN, and imagery dissemination. GBS consists of space, transmit, and receive segments. The Marine Corps is only procuring the GBS Receive Suites (RS) which is comprised of the Receive Broadcast Manager (RBM) and receive antennas. The RBM consists of a microcomputer, monitor, Integrated Receive Decoder (IRD), and KG-175 TACLANE cryptographic equipment. The RS receives information from the transmit segment, decodes it and then distributes the information to users. Marine Corps configurations of the RS include the Enhanced version (both classified and unclassified microcomputers) and the Standard version (classified microcomputer only). In addition, the Marine Corps is purchasing both the fixed station RS and the transportable RS.

Legacy Communications/Electronics Modifications and Sustainment encompass post production sustainment of fielded tactical communication and networking systems and service life extension programs (SLEP) of aging communications equipment reaching the end of their life cycle. The post production sustainment provides necessary engineering and logistic support to maintain the existing operational capability above threshold operational readiness. The support provides equipment specialists, configuration management, supply support coordination and control, depot maintainance control and warranty administration. There are three SLEP/supportability upgrades required. These are the AN/TRC-170 Tropospheric Scatter Microwave Radio Terminal, the Unit Level Circuit Switch (ULCS) and the AN/PSC-5 "Shadowfire" modification. The AN/TRC-170 provides secure digital trunking between major nodes of the TRI-TAC communications network with a range of over 100 miles and will reach its end of service life in FY05. The ULCS (TTC-42, SB-3865 and SB-3614) require sustainment and modifications to continue the operating forces capability until TSM is fielded. The AN/PSC-5 Mod allows for the fielded AN/PSC-5 to supported past FY04.

GROUND MOBILE FORCES (GMF) (STAR-T) - The GMF START-T (Super High Frequency (SHF) Tri-band Advanced Range Extension Terminal) is a tactical satellite terminal that is mounted on a heavy HMMWV. All components will be self contained on a removable pallet and can operate independently of the HMMWV, and each terminal will be interoperable with existing tactical satellite terminals and Tri-Tac equipment.

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<p>Trojan Lite - The Trojan Lite is a dual-band, transit case mounted satellite communications terminal that will augment the Trojan Spirit II. It will be used to support USMC intelligence long haul communications requirements and will provide direct connectivity into the SIPRNET and other intelligence networks.</p> <p>High-Frequency (HF) - HF radios utilize the 1.6MHz to 29.999 MHz electromagnetic spectrum. These radios employ advanced technology to provide high-speed data rates, digital voice, automatic link establishment, frequency hopping, multi-waveform modems (serial tone, 39 tone, and FSK) embedded COMSEC, active squelch, and improved power management.</p> <p>OS-302 SATCOM Cost of War (COW): OS-302 Antennas allow mounted and mechanized forces the ability to maintain Satellite Communications (SatCom) radio connectivity on the move (OTM). Units require the ability to maintain SATCOM OTM for over the horizon tactical voice and data communications. (\$774K)</p> <p>AN/PRC-150 COW: It enhances the recon teams ability to pass both voice and data information to the Recon Operations Center (ROC) due to the AN/PRC-150's use of the Automatic Link Establishment (ALE) protocol and advanced modems. The AN/PRC-150 also eliminates the need to carry external cryptographic devices and their associated cables and batteries, lightening the already heavy load of the recon teams. Any weight that can be eliminated from a recon teams load, directly contributes to the team's ability to successfully accomplish assigned missions. (\$1.974M AN/PRC 150 HF RADIO) & (\$794K PRC 150).</p> <p>VRC 102 COW: With the fielding of the HF Automatic Link Establishment (HF-ALE) capability with the AN/PRC-150 being accelerated, the requirement for a vehicular mounted capability must be addressed. The AN/VRC-102 is a high power vehicle mount assembly for the AN/PRC-150. It provides the capability of quality high power HF-ALE on the move.(\$209K)</p> <p>AN/VRC-104V3 COW: With the fielding of the HF Automatic Link Establishment (HF-ALE) capability with the AN/PRC-150 being accelerated, the requirement for a vehicular mounted capability must be addressed. The AN/VRC-104 is a high power vehicle mount assembly for the AN/PRC-150. It provides the capability of quality high power HF-ALE on the move.(\$75K)</p> <p>AV-2040 ANTENNA COW: The AV 2040 is a foldable, manpack, high gain, UHF Satellite Communication (SATCOM) antenna designed for critical missions where portability and high gain are required.(\$84K)</p> <p>DAGR (Digital Advanced Global Positioning System (GPS) Receiver) will replace the Precision Lightweight GPS Receiver (PLGR), AN/PSN-11 and AN/PSN-11(V)1 to become the new standard handheld GPS Ground Tactical Receiver. DAGR will provide the Marine MAGTF with a Precise Positioning Service (PPS) and Selective Availability Anti-jam/Anti-spoofing Secure Mode (SAASM) capable handheld GPS receiver. DAGR will be a dual frequency, twelve parallel channel receiver incorporating advanced receiver technology and advanced security devices developed jointly by industry and the NAVSTAR GPS Joint Program Office. The DAGR will be backward compatible with all PLGR interface cables. AAO 4,491</p> <p>SMART-T provides tactical users with secure, jam-resistant data and voice satellite communications via an Extremely High Frequency (EHF) uplink and a Super High Frequency (SHF) downlink capability. It is a High Mobility Multipurpose Wheeled Vehicle (HMMWV) mounted system providing MAGTF (Marine Air Ground Task Force) commanders with a secure, survivable, long-haul, medium data rate communications link that is not subject to terrain masking and horizon limitations. It is also capable of operation when removed from the HMMWV. Funds were reduced in this line for urgent UNS and COW efforts.</p> <p>LAND MOBILE RADIO SYSTEM - LMR is also known as Rapid Response System. Force Protection Rapid Response Communications System is a high priority requirement for emergent antiterrorism and force protection vulnerabilities that fulfills the Marine corps need for rapid response of force protection and concerns through Regional Communication systems and Massive Notification Systems for Home Land Defense.</p>		

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<p>PRC-117F COW: It enhances the effectiveness of the recon teams that are currently not AN/PRC-117F equipped by reducing the ammount of equipment and batteries that must be carried. This reduction in weight is significant for weight conscious recon teams. The AN/PRC-117F is a multi-mode, multi-band radio that operates in the 30-512 MHz frequency range and is capable of conducting SINCGARS, HQ II, DAMA SatCom and beacon operations. To match the capability in the AN/PRC-117F, an AN/PSC-5,a PRC-119, a PRC-113, a KY-57 and their batteries and ancillaries must be carried. (\$577K)</p> <p>PRC 148VCOW: The ability to communicate is essential to the accomplishment of 1st Force Reconnaissance Company's mission and all supporting tasks (as per Mission Statement for T/O 4718D): To conduct amphibious reconnaissance, deep ground reconnaissance, surveillance, battlespace shaping, and limited scale raids in support of the MEF, other Marine Air-Ground Task Forces, or a joint force. With its ability to support intra-team communications, DA missions, and serve as a survival radio, the PRC-148(V)1 supports all of 1st Force Reconnaissance Company's tasks. The radio is also required for support and rear area security within the Force Service Support Group and Marine Logistics Command (MLC). The PRC-148(V)1 radio is an advanced, handheld multi-band radio with internal cryptographic capability. The PRC-148(V)1 covers the frequency spectrum from 30-512 Mhz and is capable of operating in Single Channel, SINCGARS frequency-hopping, HAVEQUICK frequency-hopping, or beacon mode. The PRC-148(V)1 allows Marines to talk to other ground and air units with a light, durable, and simple-to-use radio. (\$3.175M)</p> <p>EPLRS COW: Will allow the FSSG to automate and pass critical information out to its units which will enhance operational reach and provide greater flexibility to the CSSE commander. These communication assets will provide an ability to allow the FSSG to rapidly adapt to changing circumstances by distributing information in a real-time manner. (\$3.759M)</p> <p>IRIDIUM COW: Reconnaissance team's mission is to observe and report happenings within their assigned area of operations, this can sometimes be in excess of 500 miles forward of the Commander. Providing these men with a lightweight, emergency means of communications, while they are so far in advance of the main effort of fighting forces, provide a great asset not only to the area Commander, but to the Reconnaissance team leader as well. Secure Iridium phones provide the Reconnaissance team leader the ability to report current conditions of the battlefield directly to the Commanding Officer. The Iridium phones also can provide critical back up communications during times of required extractions. (\$191K)</p> <p>AN/PSC-5 The AN/PSC-5D provides embedded Communication Security (COMSEC), encrypted voice and data, and Over-The-Air-Rekey (OTAR) capabilities, thereby ensuring multi-service interoperability with most existing and planned communications systems. In addition to voice and data, the AN/PSC-5D interfaces with facsimile, teletype, and frequency modulation retransmission media such as SINCGARS.</p> <p>FY03 matches actual program value as of September 2003.</p>		

Exhibit P-40a, Budget Item Justification for Aggregated Items									Date: February 2004				
Appropriation / Budget Activity Procurement, Marine Corps (1109) / Communications and Electronic Equipment (4)							P-1 Item Nomenclature: RADIO SYSTEMS						
Procurement Items	Code	UOM	Prior Years		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
GROUND MOBILE FORCES	A	D	57.8		0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.7
		Q											
SMART-T	A	D	20.9		14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.1
		Q											
GLOBAL BROADCAST SERV TERM	A	D	0.1		0.0	9.5	0.0	7.0	0.0	0.0	0.0	0.0	16.5
		Q											
LIGHT WEIGHT MULTI SATELLITE TERMINAL	A	D	0.0		4.6	8.4	5.2	0.3	0.1	0.0	0.0	0.0	18.6
		Q											
TROJAN SPIRIT LITE	A	D	0.0		0.0	0.4	4.9	1.9	0.4	0.5	0.5	0.0	8.6
		Q											
HF RADIOS	A	D	0.0		0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	1.1
		Q											
DEFENSE ADVANCED GPS RECEIVER	A	D	0.0		0.0	0.0	0.0	0.0	0.0	10.6	2.2	0.0	12.8
		Q											
LEGACY RADIO SYSTEM	A	D	0.0		0.0	0.0	3.8	7.2	10.2	9.3	6.3	0.0	36.7
		Q											
SHF WIDEBAND TRANSMISSION	A	D	0.0		0.0	0.0	0.0	0.0	0.0	6.4	1.4	0.0	7.8
		Q											
TACTICAL HH RADIOS	A	D	0		4.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	8.8
RAPID RESPONSE SYSTEM (LMR)	A	D	25		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAND MOBILE RADIO SYSTEM	A	D			20.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Exhibit P-40a, Budget Item Justification for Aggregated Items

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Appropriation / Budget Activity							P-1 Item Nomenclature:						
Procurement, Marine Corps (1109) / Communications and Electronic Equipment (4)							RADIO SYSTEMS						
Procurement Items	Code	UOM	PRIOR		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
OS-302 COW	A	D	0.0		0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
		Q											
PRC-150 COW	A	D	0.0		0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
		Q											
VRC 102 COW	A	D	0.0		0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
		Q											
AN.VRC-104V3 COW	A	D	0.0		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
		Q											
AV-2040 ANTENNA COW	A	D	0.0		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
		Q											
PRC-117 COW	A	D	0.0		0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
		Q											
PRC-148 COW	A	D	0.0		3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
		Q											
EPLRS COW	A	D	0.0		3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
		Q											
IRIDIUM (COW)	A	D	0.0		0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
		Q											
AN/PC 150 HF RADIO COW	A	D	0.0		2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
		Q											
AN/PSC-5 RADIO COW	A	D	0		0.1	0	0	0	0	0	0	0	0.1

Exhibit P-40, Budget Item Justification Sheet								Date: February 2004				
Appropriation / Budget Activity/Serial No: Procurement, Marine Corps (1109) / Communications and Electronics Equipment (4)								P-1 Item Nomenclature: LIGHTWEIGHT MULTI SATELLITE SERVICE TERMINAL				
Program Elements: 0206313M Marine Corps Communication Equipment				Code: A	Other Related Program Elements:							
	Prior Years			FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Prog
Proc Qty				3	2	28						
Gross Cost	0.0			4.6	8.4	5.2	0.3	0.1	0.0	0.0	0.0	18.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0			4.6	8.4	5.2	0.3	0.1	0.0	0.0	0.0	18.6
Initial Spares	0.0			0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	1.5
Total Proc Cost	0.0			4.6	8.4	6.7	0.3	0.1	0.0	0.0	0.0	20.1
Flyaway U/C												
Wpn Sys Proc U/C				1.5	4.2	.2						
<p>LIGHTWEIGHT MULTIBAND SATELLITE TERMINALS (LMST) are tri-band SHF satellite terminals mounted in transit cases and transported by HMMWVs. They will upgrade existing GMF satellite terminals at the Marine Expeditionary Forces. The AAO for the LMST was tailored to allow a procurement of 52 terminals to ensure the USMC C2 Architecture. FY05 - Procurement upgrades of 28 existing LMSTs.</p>												

Exhibit P-5, Weapon WPN SYST Cost Analysis		Appropriation/ Budget Activity/Serial No: Procurement, Marine Corps (1109) / Communications and Electronics Equipment (4)					P-1 Line Item Nomenclature: LIGHTWEIGHT MULTI SATELLITE SERVICE TERMINAL		Weapon System Type:		Date: February 2004		
Weapon Svstem Cost Elements	ID CD				FY 03			FY 04			FY 05		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$	\$000	Each	\$	\$000	Each	\$	\$000	Each	\$
Lightweight Multiband Satellite Terminal (LMST)	A				3000	3	1000000	7400	2	3700000			
Lightweight Multiband Satellite Terminal (LMST) Upgrades	A										4320	28	154286
ENG Support					1154						180		
ILS					351						523		
Fielding					93						200		
GFE								450					
Maintenance Kits								550					
Total					4598			8400			5223		
Active					4598			8400			5223		
Reserve													

Exhibit P-5a, Budget Procurement History and Planning									Date: February 2004	
Appropriation / Budget Activity/Serial No: Procurement, Marine Corps (1109) / Communications and Electronics Equipment (4)				Weapon System Type:		P-1 Line Item Nomenclature: LIGHTWEIGHT MULTI SATELLITE SERVICE TERMINAL				
WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail?	Date Revsn Avail	RFP Issue Date
Lightweight Multiband Satellite Terminal (LMST) FY03	Harris Corp, Melbourne, FL	FFP	CECOM	Feb-03	Nov-03	3	1000000	Y	N	N
Lightweight Multiband Satellite Terminal (LMST) FY04	Harris Corp, Melbourne, FL	FFP	CECOM	Nov-03	Oct-04	2	3700000	Y	N	N
Lightweight Multiband Satellite Terminal (LMST) Upgrades FY05	Harris Corp, Melbourne, FL	FFP	CECOM	Jan-05	Apr-06	28	154286	Y	N	N
REMARKS:										

Exhibit P-20, Requirements Study				Appropriation/Budget Activity/Serial No: Procurement, Marine Corps (1109) / Communications and Electronics Equipment (4)				Date: February 2004			
P-1 Line Item Nomenclature (Include DODIC for Ammunition Items): LIGHTWEIGHT MULTI SATELLITE SERVICE TERMINAL				Admin Leadtime (after Oct 1):				Prod Leadtime:			
Line Descriptions:				FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Buy Summary				3	2	28					
Unit Cost				1000	3700.0	154286					
Total Cost				3000	7400.0	4320					
Asset Dynamics											
Beginning Asset Position				25	25	30	30	30	30	30	
Deliveries from: FY 2003 Funding					3						
Deliveries from: FY 2004 Funding					2						
Deliveries from: FY 2005 Funding							12	16			
Deliveries from Subsequent Years Funds											
Other Gains											
Combat Losses											
Training Losses											
Test Losses											
Other Losses (UPGRADES)							12	16			
Disposals/Retirements/Attritions											
End of Year Asset Position				25	30	30	30	30	30	30	
Inventory Objective or Current Authorized Allowance				52	52	52	52	52	52	52	
Inventory Objective		Actual Training Expenditures		Other than Training Usage		Disposals (Vehicles/Other)		Vehicles Eligible for Replacement		Aircraft: TOAI	
52											
Assets Rqd for Combat Loads:		thru FY XXXX		thru FY XXXX		thru FY XXXX		FY 2004		PAA: TAI	
WRM Rqmt:		FY XXXX		FY XXXX		FY XXXX		FY 2005		Attrition Res	
Pipeline:		FY XXXX		FY XXXX		FY XXXX		Augment		BAI	
Other:		FY XXXX		FY XXXX		FY XXXX				Inactive Inv	
Total:										Storage	
<p>Remarks: The 1st 25 LMSTs were procured under Ground Mobile Forces (GMF) line with FY 00 funds. FY03 - Congressional Add procures 3 LMSTs. FY04- Congressional Add procures 2 LMST'S FY05 - Upgrades 28 of existing 28 LMSTs.</p>											

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